

Claims:

1. A process for the production of iohexol comprising alkylating 5-(acetamido)-N,N'-bis(2,3-dihydroxypropyl)-2,4,6-triiodoisophthalamide with a 2,3-
5 dihydroxypropylating agent in the presence of a base and of a solvent which solvent comprises a C₁-C₅-monoalkylether of a C₃-C₁₀ alkylene-glycol.
2. A process as claimed in claim 1 wherein said glycol is 1-methoxy-2-propanol.
- 10 3. A process as claimed in claim 1 or 2 further comprising one or more co-solvents.
4. A process as claimed in claim 3 wherein said co-solvents comprise C₁-C₄ alkanols, preferably methanol, and/or water.
- 15 5. A process as claimed in claim 3 or 4 wherein said solvent comprises 1-methoxy-2-propanol and 0-40 volume% of methanol.
6. A process as claimed in claim 3 or 4 wherein said solvent comprises 1-methoxy-2-propanol and 0-20 volume% of water.
- 20 7. A process as claimed in claims 1 to 6 wherein said solvent is used in an amount of 0.5 to 5 ml, more preferred 0.7 to 3 ml and most preferred 0.9 to 1.0 ml per gram 5-Acetamide.
- 25 8. A process as claimed in any of the previous claims further comprising purifying the crude iohexol obtained from the N-alkylation reaction using a solvent comprising a C₁-C₅-monoalkylether of a C₃-C₁₀ alkylene-glycol.
9. A process as claimed in claim 8 where the C₁-C₅-monoalkylether of a C₃-C₁₀
30 alkylene-glycol is the same glycol as used in the N-alkylation process.
10. A process as claimed in claims 8 and 9 wherein in said purification the C₁-C₅-monoalkylether of a C₃-C₁₀ alkylene-glycol is 1-methoxy-2-propanol.
- 35 11. A process as claimed in claims 8 to 10 wherein in said purification the solvent further comprises one or more co-solvents.

12. A process as claimed in claim 11 wherein said co-solvent comprises C₁-C₄ alkanols and preferably methanol.
13. A process as claimed in claims 9 to 12 wherein the amount of said solvent is
5 adjusted to 1.5 to 8 ml of the C₁-C₅-monoalkylether of a C₃-C₁₀ alkylene-glycol /g
iohexol, to 0-1 ml C₁-C₄ alkanol/g iohexol, and to 0.001-0.3 ml water/g iohexol.
14. A process as claimed in claims 8 to 13 where the purification is performed by
10 crystallising the iohexol from said solvent and then separating the crystals from
said solvent.
15. A process as claimed in claims 8 to 14 wherein the salt content in the reaction
mixture of the alkylation reaction is reduced prior to the purification step.
- 15 16. A process as claimed in claims 8 to 15 wherein the water content in the reaction
mixture of the alkylation reaction is reduced prior to the crystallisation step
preferably by azeotropic distillation.
17. A method as claimed in claims 8 to 16 where the crystalline iohexol is washed
20 with isopropanol and dried.